UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,159	12/05/2001	Richard C. Van Hall	02890041AA	2291

7590 03/10/2005

McGuire Woods
Suite 1800, Tysons corner
1750 Tysons Boulevard
McLean, VA 22102-4215

EXAMINER	
CHANG, JON CARLTON	
ART UNIT	**PAPER NUMBER**
2623	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/002,159	VAN HALL, RICHARD C.	
	Examiner	Art Unit	
	Jon Chang	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 05 December 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

1. The drawings are objected to because they are not of sufficient quality for publication (note handwritten entries which do not reproduce well). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

It is not clear what is meant by "CABProcessing" and "ABL" in the paragraph bridging pages 5-6. It is suggested that short definitions or explanations for these terms be added to the specification.

Appropriate correction is required.

Claim Objections

3. Claim 25 is objected to because of the following informalities: The preamble of the claim states that the "machine readable medium" comprises "steps". This is incorrect. It is suggested that the preamble be amended to read, "A machine readable medium containing code which causes a computer to perform a method for communicating area information in a common framework, the method comprising the steps of:"

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The subject matter of claims 1-23 involves the mere manipulation of data (e.g., coordinates). The claims are not limited to a practical application. The subject matter is not associated with any kind of computer or other related machine. In fact, in the manner in which the claim is written, the "instructions" could be mere "mental" instructions.

Claim Rejections - 35 USC § 112

6. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites, "wherein the second AOI space has the same or more constrained than the initial AOI space." This does not make sense. There may be a word or words missing.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-5, 6-9, 11-13, 15-16 and 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,104,405 to Idaszak et al. (hereinafter "Idaszak").

As to claim 1, Idaszak discloses a method for communicating area information in a common framework, comprising the steps of:

providing a first set of instructions which generates an area of interest (AOI) defined by a first geometric shape (the object, column 6, line 50, is an area of interest defined by a first geometric shape, which is a polygon, column 8, lines 54-55; the set of instructions is provided by the planar image graphics system, column 5, line 66 to column 6, line 11, which relies on OpenGL, column 5, lines 59-60 and column 8, lines 54-55);

defining the first geometric shape by one or more coordinates (the first geometric shape is specified by vertices, which are defined by coordinates, column 10, lines 62-67, and implied at column 6, lines 63-64);

converting the one or more coordinates to a second set of coordinates for use with a second set of instructions different than the first set of instructions, wherein the second set of coordinates is defined by a new AOI which includes information associated with the first set of instructions and which is interpreted by the second set of instructions (the second set of instructions is provided by the nonplanar image graphics computer system, column 5, line 66 to column 6, line 11; column 6, lines 63-64 and column 10, lines 63-67; the new AOI is the object after transformation/correction, column 6, lines 50-64).

As to claim 2, Idaszak discloses the method of claim 1, wherein the new AOI associated with second set of instructions define a second geometric shape (since the

coordinates are changed according to column 10, lines 60-67, and since the first AOI is a geometric shape, then the resulting new AOI would be a geometric shape as well).

Regarding claims 3 and 4, Idaszak's disclosure inherently accounts for the first and second geometric shapes to be both the same and different. The whole point of Idaszak's invention is to account for the distortion resulting from displaying a planar object on a nonplanar display (see Background). In compensating for the distortion (e.g., by the distortion correction, column 6, lines 57-63), the resulting geometric shape displayed on the nonplanar display would appear to be the same as the first geometric shape. In that sense, they are the same. In another sense, they are different shapes because the coordinates of the vertices have been transformed, column 6, lines 50-51).

As to claim 5, in Idaszak, it is inherent that the first geometric shape is more constrained than the second geometric shape. Note that the first geometric shape deals with a planar object which is to be displayed on a nonplanar display as a second geometric shape (e.g., abstract). The first geometric shape then, is constrained to a plain, whereas the second geometric shape is not.

Regarding claim 6, Idaszak discloses the method of claim 2, wherein the first and the second geometric shape is one of a bounding box, a parallelogram, a rectangle and a polygon (the geometric shapes are polygons, column 8, lines 54-55).

With regard to claim 7, Idaszak discloses the method of claim 6, wherein the bounding box is more constrained than the parallelogram, the rectangle and the polygon. Note that claim 6 presents a number of shapes in the alternative, wherein the Examiner has chosen one of them, namely the polygon. In this case, claim 7 merely

further defines one of the alternatives that were not chosen, and therefore claim 7 is properly rejected on the basis of the rejection of claim 6.

Regarding claim 8, Idaszak discloses the method of claim 2, wherein the one or more coordinates and the second set of coordinates are at least one point which defines the first geometric shape and the second geometric shape, respectively (the polygons are also points, column 9, lines 41-42).

As to claim 9, Idaszak discloses the method of claim 2, further comprising the step of rotating the second geometric shape by a predetermined amount compared to the first geometric shape (column 6, lines 45-47; the resulting transformation matrix causes rotation with respect to the first geometric shape).

As to claim 11, Idaszak discloses the method of claim 2, further comprising the step of translating the second geometric shape by a predetermined amount compared to the first geometric shape (column 6, lines 45-47; the resulting transformation matrix causes translation with respect to the first geometric shape).

As to claim 12, Idaszak discloses the method of claim 2, further comprising the step of scaling the second geometric shape by a predetermined amount compared to the first geometric shape (column 6, lines 45-47; the resulting transformation matrix causes scaling with respect to the first geometric shape).

As to claim 13, Idaszak discloses the method of claim 12, wherein the step of scaling is performed in at least one of a vertical (Y) and horizontal direction (X) (since the coordinate system is Cartesian, e.g., X, Y coordinates, any scaling would occur in one of the two directions).

Regarding claim 15, Idaszak discloses the method of claim 2, further comprising the step of orienting the second geometric shape differently than the first geometric shape (when rotating, column 6, lines 45-47, the second shape would be oriented differently than the first).

Regarding claim 16, Idaszak discloses the method of claim 2, wherein the step of defining the first geometric shape includes the steps of determining whether the first geometric shape includes one of: (i) at least three points; (ii) a distinct starting point, fast end point and a slow end point; (iii) a non-zero distance between a starting point and a fast end point; and (iv) a non zero area (any polygon having more than three points would be determined, column 9, lines 41-48; also, any polygon that is not a point or line, would have a non zero area).

With regard to claim 22, Idaszak discloses a method for communicating area information in a common framework, comprising the steps of:

filling a handle with an initial area of interest (AOI) space associated with a first set of instructions (the object, column 6, line 50; the set of instructions is provided by the planar image graphics system, column 5, line 66 to column 6, line 11, which relies on OpenGL, column 5, lines 59-60 and column 8, lines 54-55; the handle is the local NPGL data structure, column 9, line 51-53).

defining a geometric shape associated with the initial AOI (the AOI is defined by a first geometric shape, which is a polygon, column 8, lines 54-55;

converting the initial AOI space to a second AOI space associated with a second set of instructions (the second set of instructions is provided by the nonplanar image

graphics computer system, column 5, line 66 to column 6, line 11; column 6, lines 63-64 and column 10, lines 63-67; the second AOI space is that defined by the object after transformation/correction, column 6, lines 50-64); and

accessing the second AOI space with the second set of instructions (Fig.3, elements 240, 250 and 260).

Regarding claim 23, following the same line of reasoning as for claim 3, the second AOI space is the same or more constrained than the initial AOI space.

Claim 24 is drawn to a system which corresponds to the method of claim 1. The discussion applied above for claim 1 is applicable to claim 24. The system is shown, for example, in Fig.1 of Idaszak. Additionally, Idaszak's method is intended to run on a computer, hardware, or a combination of hardware and software (column 5, line 66 to column 6, line 11).

Claim 25 is drawn to a machine readable medium which corresponds to claim 1. The discussion applied above for claim 1 is applicable to claim 25. Idaszak's method is intended to run on a computer, or a combination of hardware and software (column 5, line 66 to column 6, line 11). In the computer or software, the machine readable medium containing code is inherent.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Idaszak.

Regarding claim 10, Idaszak does not discloses that the step of rotating is performed about an origin (0,0). However, to utilize a specific axis of rotation is considered an arbitrary decision, up to the desires of the user or designer, and thus is not considered a patentable distinction. Further, since Idaszak disclosure provides no restriction on rotation, it would have occurred to one of ordinary skill in the art

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Idaszak and U.S. Patent 4,701,752 to Wang.

As to claim 14, Idaszak does not disclose the step of mirroring points of the second geometric shape by a predetermined amount compared to the first geometric shape about one of a horizontal and vertical axis. However, this is old and well known in the art. For example, Wang discloses mirroring points of a second geometric shape compared to a first (Figs. 2 and 3). The mirroring occurs about the horizontal axis. Wang states that mirroring can advantageously provide a dramatic effect on displayed graphics (column 1, lines 33-36). Therefore, it would have been obvious to one of ordinary skill in the art to modify Idaszak according to Wang's teachings.

Subject Matter Not Found in the Prior Art

12. The features in claim 17, in combination with the limitations of claim 1 are not disclosed in the prior art of record. Nor would it seem obvious to incorporate all of these features into the closest prior art to Idaszak.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
March 9, 2005